S3 Fig

ID	Description	Value	Range	Data
a_1	Maximum auto-activation rate of T-bet	0.203833		[1]
a_2	Maximum auto-activation rate of RORγt	0.815603	Min: 0.00203833 Max: 2.03833	10 × either side of value for T-bet [1]
a_3	Maximum production rate of IFN-γ	0.007497877	Min: 0.00203833 Max: 2.03833	10 × either side of value for IFN-γ [2]
a_4	Maximum production rate of IL21	0.019987613	Min: 0.000203833 Max: 0.0203833	10 × either side of value for IFN-γ [2]
a_5	Maximum stimulation rate of receptor X	0.019987613	Min: 5 Max: 30	[2]
a_6	Rate of T-bet promotion or RORγt inhibition	0.304618	Min: 0.002 Max: 2	10 × either side of value for IL12 [2]
b_1	Basal transcription rate of T-bet (per min)	0.00203833		[1]
b_2	Basal transcription rate of RORγt	0.0172893	Min: 0.00203833 Max: 0.203833	10 × either side of value for T-bet [1]
g_1	Level of RORγt when transcription of T-bet is at half maximum	0.456596	Min: 0.0001 Max: 1.0	10 × either side of value for T-bet/GATA-3 [1]
g_2	Level of T-bet when transcription of RORγt is at half maximum	0.83170631	Min: 0.0001 Max: 1.0	10 × either side of value for T-bet/GATA-3 [1]
g_3	Level of RORγt when transcription of IFN-γ is at half maximum	0.625864154	Min: 0.0001 Max: 1.0	10 × either side of value for T-bet/GATA-3 [1]
g_4	Level of T-bet when transcription of IL21 is at half maximum	0.760239275	Min: 0.0001 Max: 1.0	10 × either side of value for T-bet/GATA-3 [1]
μ_1	Decay rate of T-bet mRNA	0.096016199	Min: 0.00020833 Max: 0.020833	10 × either side of value for T-bet [1]
μ_2	Decay rate of RORγt mRNA	0.18586844	Min: 0.00020833 Max: 0.020833	10 × either side of value for T-bet [1]
μ_3	Decay rate of C_1	0.1734	Decay rate of IL12	[3]

μ_4	Decay rate of C_{17}	2.038828189	Min: 0.4026 Max: 2.082	Range of decay rates of TGF-β, IL-6 and IL-23 [4,5]
μ_5	Decay rate of IFN-γ mRNA	0.18586844	Min: 0.00020833 Max: 0.020833	10 × either side of value for T-bet [2]
μ_6	Decay rate of IL-21 mRNA	0.18586844	Min: 0.00020833 Max: 0.020833	10 × either side of value for T-bet [2]
μ_7	Decay rate of IL21 mRNA	0.633595	Min: 0.004026 Max: 2.082	10 × either side of value for IL12R [2]
μ_8	Decay rate of receptor X-C_X complex	0.527035	Min: 0.004026 Max: 2.082	10 × either side of value for IL12R [2]
μ_9	Decay rate of C_X	0.125304	Min: 0.004026 Max: 2.082	10 × either side of range for IL12, IL6 and TGF-β [2]
k_1	Level of C_1 at which T-bet transcription is at half maximum	1		[1,2]
k_2	Level of C_{17} at which RORγt transcription is at half maximum	1		Same as T-bet [1,2]
k_3	Level of T-bet at which T-bet transcription is at half maximum	1		Same as T-bet [1,2]
k_4	Level of RORγt at which RORγt transcription is at half maximum	1		Same as T-bet [1,2]
k_5	Level of T-bet at which transcription of IFN-γ mRNA is at half maximum	1		[2]
k_6	Level of ROR-γt at which transcription of IL21 mRNA is at half maximum	1		Same as T-bet [2]
k_7	Rate of conversion of IL21 mRNA into protein	0.481067361		[1,2]
k_8	Rate of conversion of IFN-γ mRNA into protein	0.307552055		[1,2]
k_9	Level of ROR-γt at which transcription of receptor X is at half maximum	66.7474	Min:1 Max: 100	× either side of value for T-bet and IL12 [2]

k_{10}	Level of C_X-receptor X at which promotion of T-bet or inhibition of RORγt is at half maximum	2.60342	Min: 0.5 Max: 5	10× either side of value used by [2]
k_{11}	Rate of formation of C_X-receptor X complex	0.545609	Min: 0.01 Max: 1	10 × value used by [2] for IL12R
s_1	Rate of stimulation of T-bet by external cytokines	0.208033		[1, 2]
s_2	Rate of stimulation of ROR-γt by external cytokines	1.35863	Min: 0.020833 Max: 2.08033	[1, 2]

S3 Fig: Ranges of all parameters used in the ASPASIA generated models

References

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